

## Executive Summary

This Environmental Assessment (EA) has been prepared under the direction of the Vermont Army National Guard (VTARNG) in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] 4321 et seq.), Council on Environmental Quality (CEQ) regulations implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [C.F.R.] Parts 1500 – 1508), 32 C.F.R. Part 651 (Environmental Analysis of Army Actions; Final Rule, 29 March 2002), and as prescribed in the 2011 Army National Guard (ARNG) NEPA Handbook (Army National Guard, 2011). This EA assesses the potential of the expansion to the existing demolition range and formal operation of a Light Demo Range (LDR) located adjacent to Range 5-3 and directly south of Observation Point 1 (OP 1) in the Ethan Allen Firing Range (EAFR). The No Action Alternative is an examination of the effects should the proposed activity not take place.

The EAFR is a National Guard installation located on 11,219 acres of federal property licensed to the State of Vermont Military Department (SVMD). It is located in the northwestern region of the State of Vermont, on Lee River Road, three miles from the Village of Jericho. The property encompasses parts of the towns of Bolton, Jericho, and Underhill, in Chittenden County. The general vicinity of the EAFR is approximately 20 miles east of Burlington, Vermont. The EAFR is home to the Army Mountain Warfare School (AMWS), 3rd Battalion 172nd Infantry, 86th Infantry Brigade Combat Team, and the Training Site Detachment.

The EAFR is the major training facility which supports not only the Vermont National Guard but multiple military units and law enforcement agencies all around the New England area. There is one area where the use of demolitions and explosives is authorized that supports training of Combat Engineers, Infantry, the Vermont Army Guard's 124<sup>th</sup> Regional Training Institute, and both military and law enforcement Explosive Ordnance Disposal (EOD) Technicians. Due to the limited size and layout, the demolition area does not allow units to conduct pre-mobilization training, Mission Essential Task training, or Military Occupational Specialty training. Based on the shortfalls of the current demolition area, the Army Range Requirements Model (ARRM) has identified 19 training days that military units cannot accomplish. Therefore, units need to travel to Fort Drum, New York or further in order to complete this training. The proposed LDR is a live fire demolition and explosive facility designed by to meet U.S. Army specifications for an LDR as set forth in Army Training Circular (TC) 25-8, *Training Ranges*. The LDR is a multi-station facility that would allow units to train on the use and employment of explosives in various applications such as timber cutting, steel cutting, and obstacle reduction. Nested in the center portion of the northwest quadrant of the EAFR, the preferred location for the LDR would use the natural mountainous landscape to establish each station. Each station has specific mission tasks that can be applied in either rural or urban settings. The LDR would not only keep Vermont Army Guard units training in Vermont but would attract military units and Law Enforcement Agencies that are required to use demolitions and explosives to the area, assisting in vitalizing Vermont's economy.

This project is needed for the support of, and the ability to meet changes in mission at, the VTARNG. This facility is proposed in order to increase the level of training of VTARNG personnel. This project has been sited based upon VTARNG's environmental screening process and military requirements for safety and protection at firing ranges. At the time that the LDR was contemplated, VTARNG completed the environmental review, a screening process that considered environmental habitats, noise, and cultural resource criteria. The VTARNG evaluated several sites within the EAFR for the potential location of the LDR and it was found that the Proposed Action Site is the only location that met the required criteria outlined below:

1. Range must have varying topography and allow for view lines to and from the range areas from the proposed missile proof shelter stations.
2. Range must be located near adjacent ranges within the central portion of the range to provide a buffer to adjacent land uses.
3. Range must be located outside of adjacent cones of fire previously depicted within the range.
4. Range must not impact other functioning ranges.
5. Range must minimize potential environmental impacts to environmentally sensitive areas, existing natural botanical areas, and wildlife areas. Range must be located to avoid excessive travel times and

- costs associated with driving to another installation for training days and opportunities.
6. Range must be located to avoid excessive travel times and costs associated with driving to another installation for training days and opportunities.

Several alternatives were reviewed to include a No Action Alternative. This review included four alternatives as follows:

**Alternative 1** (Proposed Action and Preferred Alternative): expand the existing demolition range and formal operation of a LDR located adjacent to Range 5-3 and directly south of OP 1 in the EAFR.

**Alternative 2:** locate the LDR closer to the center portion of the northwest quadrant of the EAFR. Where this would make the range more remote and would increase the standoff distance to infrastructure, the problem became de-conflicting the surface danger zone for the Demolition Range and other live fire ranges. In essence, the Demolition Range was access challenged due to the locations of other ranges.

**Alternative 3:** locate the LDR to the south side of the installation. This alternative was dismissed because it moved the Demolition Range closer to the edge of the installation boundary and it was in a more open area which raised the concern of not being able to contain the potential noise created from the blasts.

**Alternative 4:** No Action Alternative. This alternative was not a viable solution to fix the shortfalls in training days and opportunities. The No Action Alternative does not meet Army TC 25-8 LDR specifications. The No Action Alternative continues to significantly reduce the readiness of units which reflects on the ability of the unit to respond to the needs of the States and Nation. The Vermont Army Guard wants to train as much as possible in the State of Vermont, thereby reducing the costs of travel, the loss of valuable training time taken by driving to another installation and limit the time soldiers spend away from their families and employers.

Uses within the EAFR are carefully orchestrated between VTARNG's two primary functions: its military mission and its environmental stewardship. VTARNG's Integrated Natural Resource Management Plan (INRMP) documents the process by which VTARNG has inventoried the EAFR's resources and identified management programs both in general and for specific areas with the EAFR.

After consideration of all factors, the Proposed Action site location was selected as the location for the LDR. Military objectives, including distance from population centers and adherence to safety precautions, were met at this location. The area was identified as being able to accommodate the proposed facilities while minimizing impacts to the wetlands, contains no previously identified historic sites, and no known areas of site contamination were identified. Conceptual plans are included in Appendix A.

This EA analysis focuses on land use and noise, biological resources, and cultural resources. The Proposed Action has been reviewed with regard to the need for environmental permits and authorizations. Minor environmental authorizations and notifications would be required and would be addressed prior to start of construction for this project. This EA describes the potential direct, indirect, and cumulative effects of implementing the Proposed Action or the No Action Alternative, as well as best management practices (BMPs) that would minimize the level of identified impacts. The VTARNG considers BMPs integral to implementation, and they are not considered separate from the Proposed Action. Mitigation measures are defined as project-specific requirements (not routinely implemented by the VTARNG) necessary to reduce identified potentially significant adverse environmental impacts to less-than-significant levels. Throughout the screening and environmental assessment for this Proposed Action, careful design has allowed the Proposed Action to avoid any sensitive resources and consideration was given to BMPs that would avoid or minimize environmental impacts. VTARNG will implement the BMPs identified herein as commitments made as part of any Army decision-making on this Proposed Action.

The Preferred Action Alternative and No Action Alternative would result in the impacts identified throughout Section 4 and summarized in Table ES-1.

**Table ES-1: Alternative Comparison Matrix**

<b>Technical Resource Area</b>	<b>Preferred Action Alternative</b>	<b>No Action Alternative</b>
Land Use and Aesthetics	Long-term, less-than-significant adverse land use impacts would be anticipated and would be managed with the implementation of BMPs.	No impact attributable to VTARNG action.
Air Quality	Short-term and long-term, less-than significant adverse impacts to the existing air-quality environment would be anticipated in the vicinity of the Proposed Action area. Impacts would include (1) short-term air emissions during clearing and construction activities and (2) long-term air emissions from training operations (fugitive dust, weapons firing, and vehicular engine emissions).	No impact attributable to VTARNG action. Ongoing operations' emissions would continue.
Noise	Short-term and long-term, less-than-significant adverse impacts to the local noise environment would be anticipated and would be managed with the implementation of BMPs. Impacts would include short-term increased noise levels as a result of land clearance and construction activities and long-term increased noise levels as a result of proposed training.	No impact attributable to VTARNG action. Ongoing noise associated with current training operations would continue.
Geology, Topography, and Soils	Short-term and long-term, less-than-significant adverse impacts to topography and soils would be anticipated and would be managed with the implementation of BMPs. No effects to the geology would be proposed or anticipated.	No impact attributable to VTARNG action.
Water Resources	Short-term and long-term less-than-significant adverse impacts to water resources would be anticipated and would be managed through the implementation of standard BMPs and adherence to regulatory requirements.	No impact attributable to VTARNG action.
Biological Resources	Short-term and long-term less-than-significant adverse impacts to plant communities would be anticipated and would be managed through the implementation of standard BMPs and adherence to regulatory requirements. A short-term, less-than-significant adverse impact to wetlands would be anticipated during construction of the Proposed Action. The Proposed Action would not adversely impact any significant wetland functions and would avoid and minimize impacts to wetlands to the greatest extent practicable. The project could be constructed in accordance with the wetland permitting requirements and conditions of the Army Corps. Short-term and long-term less-than-significant adverse and positive impacts to wildlife communities would be anticipated. Adverse impacts would be managed through the implementation of standard BMPs, in addition to adherence to regulatory requirements.	No impact attributable to VTARNG action.
Cultural Resources	No effects to cultural resources would be anticipated as a result of the Proposed Action.	No impact attributable to VTARNG action.

Socioeconomics (including Environmental Justice, and Protection of Children)	No effects to socioeconomics would be anticipated as a result of the Proposed Action.	Less-than-significant adverse impact due to loss of local revenue from visiting trainees. Less-than-significant adverse impact due to continued loss of training time due to travel to remote sites.
Infrastructure	Short-term and long-term, less-than-significant adverse impacts to infrastructure would be anticipated to occur. Impacts would include (1) short-term impacts on infrastructure due to increased vehicle traffic associated with the construction of the Proposed Action and (2) long-term impacts on infrastructure due to increased vehicular traffic associated with increased training. These vehicular traffic impacts are anticipated to be negligible.	No impact attributable to VTARNG action.
Hazardous and Toxic Materials/Wastes	Short-term and long-term less-than-significant adverse impacts due to minor land conversion activities (short-term) and maintenance and training operations (long-term) would be anticipated. Less-than-significant adverse impacts would be managed through the implementation of BMPs and ongoing regulatory compliance.	No impact attributable to VTARNG action.

This EA presents in detail the following summary of impacts and BMPs:

Land Use, Aesthetics, and Noise: Under the Proposed Action, short-term and long-term, less-than-significant adverse impacts to the local noise environment would be anticipated and would be managed with the implementation of BMPs. Impacts would include short-term increased noise levels as a result of land clearance and construction activities and long-term increased noise levels as a result of proposed training. The majority of land uses bordering the EAFR are conservation land use, agricultural land use, and rural residential land use. The screening process for the Proposed Action included locating the facility away from population centers. Recent noise complaints in the EAFR vicinity can be considered an area of concern. However, the VTARNG have prepared a Final Statewide Operational Noise Management Plan (SONMP) for the EAFR to address these concerns and to provide BMPs for both military and civilian actions. The recent noise complaints have been studied by the VTARNG as part of the SONMP. The construction of the Proposed Action would be anticipated to cause a minor increase in the noise contours beyond the 2013 drawn baseline conditions (the last full noise assessment on the range). These noise increases are mostly due to increased training numbers (actual soldiers on the range) unrelated to the construction of the Proposed Action and an increase of fired howitzer rounds during the 2012 - 2014 timeframe. These increases are due to deployment cycles, and associated training needs due to these deployments, and were not considered as part of the Proposed Action for this Environmental Analysis. The increased noise caused by other factors on the range may be considered in a future environmental and noise analysis. The full Operational Noise Assessment is included in Appendix B. Noise-related BMPs incorporated into the design to manage land use impacts in the vicinity of EAFR include directing weapons firing toward the interior of the range. EAFR has taken several steps to reduce the amount of noise generated by training operations. These actions include the prohibition of firing during specific times of the day, generally between the hours of 2200 and 0730. VTARNG continues its Operational Noise Management Program to reduce the potential of incompatible land uses around its facilities that could severely impact its mission; it continues to be a good neighbor to the surrounding communities. Municipal governments are encouraged to support public disclosure of all Noise Zones in addition to any other information that may convey how military training operations may affect the noise environment. VTARNG will continue to build its noise management program to:

1. Reduce potential incompatible land uses around training facilities,
2. Prevent detrimental effects on the mission, and
3. Carry on its good-neighbor relationship with surrounding communities.

The public is informed in advance of all VTARNG training activities via press release. The EAFR provides notices of non-routine training events (e.g., artillery firing) and the routine upcoming two-month firing schedule (small caliber) to the surrounding communities. The Towns of Jericho and Underhill post the notices on the Town websites.

Air Quality: Anticipated impacts from the Proposed Action would include short-term and long-term, less-than-significant adverse impacts to the air-quality in the vicinity of the Proposed Action area. Impacts would include (1) short-term air emissions during clearing and construction activities and (2) long-term air emissions from training operations (fugitive dust, weapons firing, and vehicular engine emissions). Impacts from the Proposed Action would not be considered as contributing to a violation of any state or federal air quality standard or regulation.

Geology, Topography, and Soils: Under the Proposed Action, both short-term and long-term, less-than-significant adverse impacts to topography and soils would be anticipated and would be managed with the implementation of BMPs. No impacts to the geology would be proposed or anticipated. No unique geological features or mineral-bearing resources exist in the area. Clearing for the Proposed Action would be minimal and clearing limits would be limited to the proposed roadways, range areas, obstacle limit areas and view/observation lines. The siting of the Proposed Action was carefully selected to maximize the use of the steep topography and the proposed site grading while the layout has been designed to minimize clearing. Soil impacts would be limited to range areas and the construction of the roadways. The following standard BMPs would be used during and after construction to minimize potential impacts from erosion and runoff: silt fence, erosion matting, stoned lined ditches, and check dams.

Water Resources: Under the Proposed Action, both short-term and long-term less-than-significant adverse impacts to water resources would be anticipated and would be managed through the implementation of standard BMPs and adherence to regulatory requirements. Water resources in the vicinity of the Proposed Action consist of Lee River, which is located approximately 1,000 feet to the south of the Proposed Action. The Proposed Action is not located within the 100-year floodplain and is not expected to impact any water resources. A Construction Stormwater Erosion Prevention and Sediment Control Permit from the VTDEC would be obtained prior to construction by the contractor. Post construction operational stormwater would be managed on-site through project design and inspected in accordance with State of Vermont General Permit 3-9015. This permit would be amended to include this action and would be obtained prior to construction by the contractor. The implementation of standard BMPs during construction projects, such as the use of silt fencing and rapid revegetation following site clearing and grading, would minimize potential impacts from erosion and runoff to any nearby surface waters.

Biological Resources: Under the Proposed Action, both short-term and long-term less-than-significant adverse impacts to plant communities would be anticipated and would be managed through the implementation of standard BMPs and adherence to regulatory requirements. No rare, threatened, or endangered (RTE) plants or natural communities occur in the Proposed Action area. These findings are based on the evaluation of the project area as depicted on the attached plans and findings with the assessment report. (Appendix C) The proposed infrastructure would be located within the Northern Hardwood Forest Natural Community, which is very common, and the proposed project area would be situated within the Hemlock Forest and Hemlock-Northern Hardwood Forest, which are both common. Annual vegetative control maintenance to the LDR would include brush hogging. Human presence would be isolated to road and trail networks and range areas within the LDR. To avoid any impact outside of the LDR, as a BMP, foot traffic would not expand beyond existing trails.

A short-term, less-than-significant adverse impact to wetlands would be anticipated during construction of the Proposed Action. The Proposed Action would not adversely impact any significant wetland functions and would

avoid and minimize impacts to wetlands to the greatest extent practicable. There is one southerly-trending wetland band that is located within a low area within the upland area. (**Map W-1 for wetland location**) An existing logging skidder trail crosses this wetland. The proposed access road improvements for the Proposed Action would follow the existing skidder trail. The proposed improvements would stabilize the soils in this area and would reduce the potential for erosion along the existing trail. The Proposed Action has been designed to have minimal wetland impacts, as specified by the terms, conditions, and definitions in the General Permit (GP) issued by the New England District of the United States Army Corps of Engineers (Corps). The Project is designed to qualify for authorization as a Category 1 project under the GP and would be constructed in full compliance with the terms and conditions of the GP.

Under the Proposed Action, both short-term and long-term less-than-significant adverse and positive impacts to wildlife communities would be anticipated. Adverse impacts would be managed through the implementation of standard BMPs, in addition to adherence to regulatory requirements. The creation and operation of the LDR, and proposed activities occurring on the range, would not have any significant impact on RTE species of Vermont. Although the creation of the LDR would result in long-term, less-than-significant effects on birds, there are not any significant impacts on birds or bird habitats within or near the proposed action. The complete Wildlife and Wildlife Habitat Impact study is included in **Appendix D**. As the northern long-eared bat (NLEB) is listed under the federal Endangered Species Act (ESA), VTARNG has contacted the United States Fish and Wildlife Service (USFWS) and has provided them with the bat survey information. Both acoustic and mist-netting surveys were completed in efforts to determine the presence of the NLEB and any roost trees that may be in the project area. Acoustic surveys were conducted in early June 2015 and included 9 detector nights in roughly a 60-acre habitat area of interest (HAOI), and an additional 200-meter buffer for a total area of 120 acres. There were 619 acoustic files recorded during the survey. Mist netting was conducted in the first week of July 2015 at the same HAOI as the acoustic surveys. No NELBs were trapped in this effort. In conclusion, the VTARNG has determined that construction of the LDR at the EAFR would not likely have an adverse effect on the NLEB. In response to the surveys, the USFWS indicated that by limiting the clearing of trees to the time period between October 1 and April 15, any direct adverse effects to the NLEB could be avoided. They also indicated that indirect adverse effects would not likely occur due to the small amount of forest clearing relative to the available habitat in the immediate surrounding area. The response letter from the USFWS and the Acoustic and Netting surveys are included in Appendix E.

Cultural Resources: There would be no impacts to cultural resources as a result of implementation of the Proposed Action. The National Historic Preservation Act (NHPA) of 1966, Protection of Historic and Cultural Properties, requires federal agencies to consider potential impacts to "significant" cultural resources. An Archaeological Resource Assessment (ARA) (Report #852:2014) was conducted by the University of Vermont Consulting Archaeology Program (UVM CAP) in accordance with Section 106 of the National Historic Preservation Act (1966), as amended. This survey found no significant historic archaeological resources within the Proposed Action area; in addition, it is unlikely that the proposed improvements and/or activities in the LDR area would impact significant precontact Native American archaeological resources. Therefore, no further work concerning historic resources would be required for this project area. The ARA is included in **Appendix F**.

Socioeconomics: There would be no impacts to socioeconomics as a result of implementation of the Proposed Action. No long-term effect on population, employment, income, or housing would be expected, though minor short-term positive effects to the local economy would be anticipated from the construction activity.

Environmental Justice: There would be no environmental justice impacts associated with implementation of the Proposed Action, in accordance with EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Implementation of these projects would also have no disproportionately negative effect on children, in accordance with EO 13045, Protection of Children from Environmental Health Risks and Safety Risks.

Infrastructure: Under the Proposed Action, short-term and long-term, less-than-significant adverse impacts to infrastructure would be anticipated to occur. Impacts would include (1) short-term impacts on infrastructure due

to increased vehicle traffic associated with the construction of the Proposed Action and (2) long-term impacts on infrastructure due to increased vehicular traffic associated with increased training. These vehicular traffic impacts are anticipated to be negligible. There would be a minimal amount of new utility infrastructure as part of the Proposed Action. Utilities would be extended into the LDR from the existing infrastructure within the EAFR. The utilities for the LDR would be limited to underground power which would be brought in from the 6-6 Range facilities.

Hazardous and Toxic Materials/Wastes: Short-term and long-term, less-than-significant adverse impacts associated with Proposed Action would be anticipated due to minor land conversion activities (short-term) and maintenance and training operations (long-term). Less-than-significant adverse impacts would be managed through the implementation of BMPs and ongoing regulatory compliance. The Proposed Action site is not located in areas where VTARNG's Environmental Condition of Property Category record has indicated that the previous release, disposal, and/or migration of hazardous substances has occurred. As identified in the Environmental Baseline Survey for the EAFR, the Proposed Action would not impact any known hazardous waste site in the area. The Proposed Action would be operated in a manner that would not create any hazardous waste conditions.

There will be one 30-day comment period for the Final EA and Finding of No Significant Impact (FONSI), according to the Standard Timeline in the 2011 ARNG NEPA Handbook. Public comments received during the EA review process will be incorporated into the Final EA and FONSI. Public involvement is conducted in accordance with Council on Environmental Quality (CEQ) requirements (40 C.F.R. Part 1506.6 and 32 C.F.R. §651.47) and the 2011 ARNG NEPA Handbook. The agencies, organizations, tribal governments, and individuals who have been contacted through the Letter of Consultation process, and who will be provided with a copy of the EA for review and comment, are provided in **Section 9**.

The Proposed Action would not violate NEPA, its regulations promulgated by the CEQ, ARNG, or any other federal, state, or local environmental regulations. The ARNG and VTARNG affirm their commitment to implement this EA in accordance with NEPA. Implementation of this EA is dependent on funding. The VTARNG and ARNG's Installations and Environment Directorate and Training Directorate would ensure adequate funds are requested in future years' budgets to achieve the goals and objectives set forth in this EA.